

# Master Gunners — 20 Years Later

by Master Sergeant Wakeland K. Kuamoo



"Hey there, super tankers, how did you shoot last night?"

"We had all kinds of problems: Rangefinder went out, couldn't identify all the targets, machine guns kept stopping, forgot some of our crew duties.... Looks like we'll have to make another run. Just call us the tough-luck kids."

Conversations like this have taken place for many years, everywhere tankers train. At the end of many of these conversations, the commander yells, "Find the master gunner. Now!"

Who is this super tanker that people refer to as the master gunner? Where did he come from, and what is he all about?

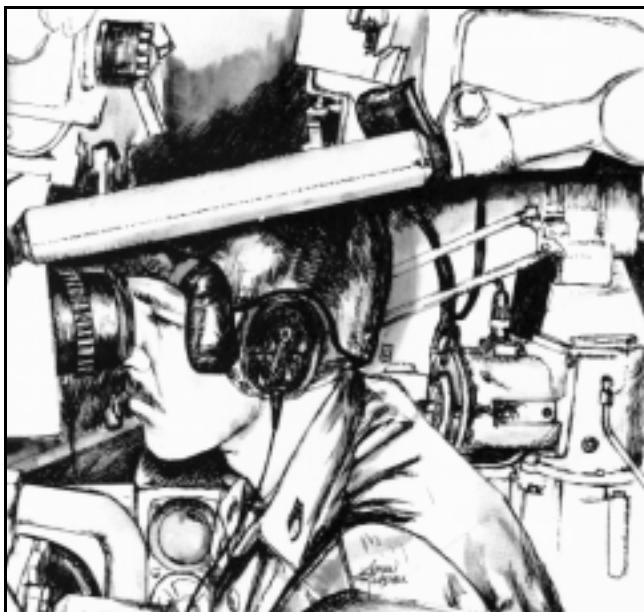
To answer this question, we take you back to early 1974 and the beginning of the Master Gunner Course. At this time, many of the Army's leaders were looking over some of the lessons learned from the Middle East wars. An overview of these lessons showed that armor played a decisive role in many battles. Firing fast with deadly accuracy determined life instead of death for tankers and victory instead of defeat for the Army. Our Army's leaders decided that armor crewmen must possess a high degree of gunnery skills if we were to be victorious in future tank battles. A team of senior staff officers from the United States Army Armor School (USAARMS) worked to develop the master gunner concept.

Once this concept was developed, it was briefed to commanders in the field, who were then asked for their opinions. The response was very positive. The United States Army Training and Doctrine Command (TRADOC) then tasked USAARMS to develop a pro-

gram of instruction (POI) for a Master Gunner Course. This POI used a three-prong approach, focusing on turret maintenance training, advanced gunnery training, and gunnery training management.

In April 1974, the U.S. Army Chief of Staff approved the concept for the master gunner program. The Armor School was directed to conduct a Master Gunner Course for the M60A1, M60A2, and the M551 Sheridan. In

one thought the M60A2 was the hottest tank on the market until the M60A3 appeared. Then the real gift from above came to the tanker in the early '80s with the introduction of the M1 Abrams tank. Familiar terms such as infrared (IR), ballistic computers, and ballistic drives changed to RAM (random access memory) and ROM (read-only memory). The Abrams tank is lethal and very quick, and the firing accuracy of the M1 and M1A1 is incredible.



1975, the first pilot Master Gunner Course was successfully conducted. In February 1976, based largely on comments from unit commanders and the successful conduct of the pilot courses, Department of the Army approved the Master Gunner Course for full-resident training.

Over the years, as our tank systems and gunnery doctrine evolved, the Master Gunner Course, and ultimately the master gunner, also evolved. Every-

In the early days, master gunners complained about the infrared M36 sight not working properly. With the M60A3 came the tank thermal sight (TTS) and the laser rangefinder (LRF). Crewmen shooting the M60A1 on a tank range next to M60A3s were always jealous, especially during bad weather. The M60A1 guys had to wait until they could see through the bad weather; the M60A3 guys just kept shooting. By the time M60A1 crewmen were finished shooting, the M60A3 guys were long gone to the rear. Yeah, we hated them.

The M73 and M219 coaxial machine guns were probably worse than the M36 sight. Many a master gunner prayed to the big "tanker in the sky" to give him a machine gun that would shoot at least a couple of rounds before experiencing a stoppage. At times, a master gunner cheered so loudly you believed he had won a big lottery. But if you listened more closely, you realized he was cheering about a crew who completed a machine gun engagement without a stoppage.

The M85 caliber .50 machine gun for the tank commander on the M60-series

# Twenty Years of Master Gunner Training — 1975-1995

1975-1988 M60A1	1975-1979 M60A2	1975-1978 M551	1982-Present M60A3	1982-Present M1	1988-Present M1A1	1994 -Present M1A2
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tank was a fairly decent firing weapon. But every now and then you could hear a master gunner working on the weapon yell, "Jesus"! You might have believed a major disaster had just taken place. Once again, closer observation revealed that the master gunner just dropped the bolt retaining pin, commonly called the *Jesus* pin, because it could take forever to find. The M2 heavy barrel (HB) machine gun, used on the M1-series tanks, has a bolt retaining pin that is not so easily lost.

The electrical system in the turret on the M60A2 and the M551 caused nightmares. I recall a time when the mechanics could not get the fire control system on an M60A2 to work, even after working the better part of the afternoon. The crew needed to shoot their day run before it got too dark. They searched for a master gunner to help. The master gunner hopped into the tank, opened the white box containing firing circuit boards, beat the boards down a couple of times, said a few choice words, and closed the cover. Once finished, he told the crew they were *ready to rock*. A test of the system proved it was indeed ready to go. You have to wonder: was it just dumb luck or one great troubleshooting system that this guy had? But when it came to master gunners, no one was really sure how they fixed some of the faults they found.

The new Abrams tank brought new maintenance test equipment (the simplified test equipment or STE). Master gunners had to become experts with this equipment. The many cables (known as the octopus cables) and connectors made many of us relish the old M60A1 days. If you ask an M1A2 (additional skill identifier [ASI] K8) master gunner what he really likes about the turret maintenance system, you'll probably hear that he has finally won the battle with the octopus cables. What this really means is that there is no requirement to use the STE on the M1A2 tank. Hoooo-Waaaaa!

The Master Gunner Course continues to evolve and provide the master gunner with the latest in tank technology training. The master gunner students on

the M60A1s considered the M60A3 guys the *master gunner elite*. Old-time M60 master gunners were eager to go through the transition course and become the super M1 (ASI A8) master gunner. M1 master gunners were soon referred to as Star Wars Troopers. We now train qualified M1 and M1A1 master gunners on the M1A2 Abrams tank system, the latest version of the Abrams tank.

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Not content to rest on past achievements, the Master Gunner Course is still improving. Some improvements include:

- An overall reduction of the course attrition rate.
- Increased communication with the field on the prerequisites, progress of the student, and standards of the course.
- Assigned faculty advisors.
- Production of videotapes on gunnery-related tasks students must perform during the course.
- Realignment of the Tank Crew Gunnery Skills Test (TCGST). (The TCGST is now administered as a diagnostic test at the beginning of the course, with emphasis on training. Soldiers who have difficulty with the diagnostic TCGST are reevaluated periodically throughout the course.)

All of these improvements have focused on training and sending better trained master gunners back to the field. Master gunners in the future must continue to provide expertise that commanders in the field can rely upon.

Twenty years have passed since the first soldiers graduated from this course to become the first master gunners. During those 20 years, several thousand soldiers have completed the course. Has the master gunner made a

difference and improved the gunnery training of our tankers, as our Armor leaders originally intended? The success of armor crewmen in DESERT STORM indicates superb gunnery training was the norm. If that training can, in some part, be attributed to the Master Gunner Course, the answer is a resounding YES! Over the past 20 years, commanders in the field have always stood behind the master gunner program by sending their best soldiers to the course. The success of the Armor master gunner program has also been recognized by our brothers in the infantry. The Infantry Center at Fort Benning now conducts a tough, top-notch Master Gunner Course for Bradley soldiers.

What does the future hold for the master gunner? No one knows, except perhaps Old Bill. But this we know — when a tank crew experiences gunnery problems or a fire control system fault, when a live-fire range ceases operations, or when any other problem hinders gunnery training, you can be assured that you will hear that old familiar yell, "SOMEONE GET A MASTER GUNNER, AND GET HIM NOW!"

Master Sergeant Wakeland K. Kuamoo received his Armor training at Ft. Knox, Ky., in 1974. His previous assignment was as a platoon sergeant, first sergeant, and division master gunner with the 4th ID, Ft. Carson, Colo. Other assignments include the U.S. Embassy, Republic of Yemen; 2d ID, Korea; 25th ID, Hawaii; 9th ID, Ft. Lewis; and 1st AD and Berlin Brigade, Germany, as well as the Armor Center. He is currently serving as the Chief of the Master Gunner Branch, 5th Squadron, 16th Cavalry Regiment, U.S. Army Armor Center.